

MISSOURI CONSERVATIONIST

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Serving Nature & You



Vantage Point

Helping Private Landowners

I recently took a nighttime plane ride across a large section of Missouri and was amazed to see the lights of civilization everywhere. There were no vast expanses without lights as I expected in the Ozarks, Missouri River floodplain or the prairies of north and western Missouri. I realized how urbanized Missouri has become and how large farms continue to be carved into smaller ownerships.

As administrator of the Conservation Department's Private Land Services Division, I lead a group of hard-working and dedicated employees that help Missouri landowners interested in managing their lands for forest, fish and wildlife resources. Each property comes with its own unique blend of natural resources, conservation needs and landowner management objectives. Our challenge is to find ways to serve the diverse needs of an ever increasing number of landowners.

In the past, most of the landowners the Conservation Department assisted lived on and farmed their property. The fact that they were working the land was a plus when a Private Land Conservationist recommended planting wildlife food plots, converting pasture to native grasses or thinning young forest stands. Farmers know how to do the work and usually had the equipment. On the other hand, the priority of agricultural landowners is to make a living on the farm. Fish, forest and wildlife benefits often are of secondary importance.

A growing trend in Missouri (and nationwide) is the subdivision of agricultural farms into smaller tracts that are sold to what I call recreational landowners. I'm part of this trend. My husband and I recently purchased 120 acres in Shelby County that was part of a much larger farm. Like a lot of these new landowners, our highest priority is to create a place for my family to hunt and relax.

Working with recreational landowners offers a different challenge. For them, conservation benefits are most important, but they often don't have farming experience or equipment to do the job.

Fortunately, we have developed programs and assistance that can benefit both agricultural landowners and recreational landowners. Our Private Land Conservationists are located throughout Missouri to provide timely and professional technical assistance to all landowners on matters concerning fish, forests and wildlife. Many times we can help landowners directly through Conservation Department programs, or we steer landowners to programs administered by other agencies. A few examples provide a hint of the many



programs and services we offer.

- * Helping USDA deliver Farm Bill conservation programs that include forest, fish and wildlife management.
- * Providing cost-share assistance to make conservation as affordable as possible.
- * Training and maintaining a list of "conservation contractors" that can be hired to implement conservation practices.
- * Helping Soil and Water Conservation Districts acquire farm equipment available for loan or rent to landowners.
- * Assist landowner cooperatives that encourage equipment and labor sharing to put conservation on the ground.

Our division recently dedicated 10 more field staff to provide direct assistance to Missouri landowners. Why all this effort? The reason is simple. About 93 percent of Missouri's forests, pastures, crop fields, prairies, wetlands, streams, ponds, savannas and glades are privately owned.

Our director, John Hoskins, often says that "the success or failure of conservation in Missouri will be determined on privately owned land."

He is right on target. Private land conservation is critical to the overall health of Missouri's forest, fish and wildlife resources.

Lisa Allen, Private Land Services Division Administrator

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TREE PRESENT

My sycamore did not look as attractive as the one on your January back cover. I found it to be nastier than walnut trees. Laundry on the line beneath it actually picked up an unpleasant odor.

We never did see ball-like fruit. Those might have saved it because the finches and wood ducks would have benefited. Instead the tree was sawed down, my Christmas present to myself.

I did some research and found that in the "Old West," they made buttons of the smaller limbs. I also learned the hard and durable wood of sycamore makes good lawn furniture.

Sally Kruse, Clinton

MILL WORK

Your ombudsman's response to the person with the large walnut tree was correct, except that changes in saw mills have made urban timber much more useable.

Thin-kerf band mills use a large band saw to cut logs. Blades for these mills

cost only about \$20. The only problem that occurs when they encounter metal in the log is that they get dull. The mills themselves cost as little as \$7,000. They can be extended to cut any log from about 4 feet up.

These new saw mills have changed the picture on the use of old trees in your yard.

Robert C. Sheldon, Carthage

I agree with your reply to the person with the large walnut tree in her yard. The tree would have to be very big, very good quality and very easy to take down to interest a logger.

In a "backyard" setting the bigger trees are the hardest and most expensive to take down because of power wires, fences, pools, garages, etc. The logger would have to contract an arborist with proper insurance just to get the tree down. That cost alone usually negates the interest of a logger.

Also, trees are rarely as big and as nice as tree owner profess them to be.

Based upon the information I receive from homeowners, I do refer some to a couple of our local sawmills.

Rob Emmett, via Internet

BIRD PHOTOGRAPHY

I couldn't take it anymore. I had to write a note and tell you how lucky we are to view Jim Rathert's bird and wildlife photography.

Every piece of work I've seen of his is superb. The latest, the red shouldered hawk on the back cover of the February issue just amazed me. Many of us out here appreciate Jim's professionalism, dedication and skill, and the fact that he shares all of this with us.

Mark Rost, Shawnee, Kansas

AGING

In an article about the Conservation Federation of Missouri on your website, you state that the organization is 60 years old next year. I am 70 years old next year and I was born in 1936, the same year as CFM. What do I need to do to be 60 again like CFM?

Lee Trapp, St. Charles

Editor's Note: Our website archives articles that have appeared in past issues of the Conservationist. The article you read was included in the October 1995 issue.

WILD LIFE

Thank you for the February Outside In section. It will keep my grandchildren amused for hours. Plus, I learned to make a worm farm. Second childhood is almost as good as the first, if grandchildren are involved.

L.Duncan, Rolla

SNOOPY SNAKE

Your picture of a water snake and snail brought back the memory of a similar type of occurrence.

I was the first resident conservation agent of Randolph County. I was patrolling Moberly City Lake when I



MONSTER MORELS

Ross Walquist of Jefferson City took this picture of his son, Kieron, posing with a handful of morel mushrooms found on a family outing. Morel fever builds in late March and early April, when any warm rain might bring forth a bounty.

saw a snake swimming in the water in such a fashion that I knew something was wrong. I gathered in the snake to find a large snail on its head. I separated snake and snail after the local newspaper took a picture of it. This was about 1960.

Gary W. Wagner, Farmington

SHOPPING TIP

When shopping for Christmas I try to have a different theme each year. This last Christmas I decided to go with "Missouri" as my theme since most of our relatives and friends live out of state. I wanted to impress upon them

the great attributes of our state.

We have subscribed to the *Missouri Conservationist* magazine for many years, and I purchased many gifts through your magazine that you offer. The CD, "Fiddles and Forests" is truly worth the small price that it cost. After listening to it, I ordered three more for gifts. We also purchased "Voices of the Hills" tape and enjoy it very much. I also purchased many educational books and tapes for our young grandchildren. They all enjoy them very much.

Thank you for such great products and such a fine magazine.

Willie Collins, Clinton

The letters printed here reflect readers' opinions about the Conservationist and its contents. Space limitations prevent us from printing all letters, but we welcome signed comments from our readers. Letters may be edited for length and clarity.

Ask the Ombudsman



Q: Why has the daily limit for trout gone from five to four?

A: Missouri's trout plan, which was approved in 2003, recommended reducing the statewide daily limit from five to four to help distribute the harvest among more anglers, thereby allowing more anglers to enjoy fishing success. Before making this decision, fisheries personnel surveyed focus groups and angler groups. Most respondents felt that

a limit reduction wasn't a problem as long as the quality of angling remains good.

The trout plan calls for several other key strategies to help improve the quality of trout fishing in Missouri. One of the most important is renovating and expanding our aging trout hatcheries over the next five years. Almost all of Missouri's trout come from hatcheries. The Conservation Department produces approximately 1.7 million trout each year for stocking. Hatchery renovation will secure our current production capability, and hatchery expansion will allow for an increase in the size and number of trout available for stocking in Missouri waters.

The first phase of design work has been completed and renovations have begun. The combination of reduced daily limits, new management strategies, and trout hatchery renovations set the stage for the Conservation Department to continue to provide high quality trout fishing experiences for Missouri anglers.

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Conservation Department programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573/522-4115, ext. 3848, or e-mail him at <Ken.drenon@mdc.mo.gov>.

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THE PATRON *A panfishing float on the St. Francis River has many redeeming qualities.* “*Saint*” OF PANFISH ANGLERS

BY MARK GOODWIN, PHOTOS BY CLIFF WHITE



The St. Francis River is a great place to catch a mess of tasty, feisty panfish.

Missouri has so many great float fishing streams that anglers often overlook the St. Francis River. This is a gentle stream that offers outstanding opportunities for catching bass, catfish and panfish.

My friend Victor Burns has fished the St. Francis River for more than 20 years. Like many anglers, he enjoys fishing the St. Francis

for catfish and bass, but he best enjoys time on the river fishing for panfish.

The promise of great fishing on the St. Francis is how Victor persuaded me to float a 6-mile section of the river in Madison County, from Silver Mine Access to the take-out at Highway E. He told me that on a day's float—late spring through fall—an angler can usually catch all the panfish he wants to clean. The catch usually





What they lack in size longear sunfish make up for in beauty.

includes a half dozen or more different panfish, as well as a sprinkling of bass and catfish. Not knowing what's likely to bite next makes the fishing even more fun.

His report almost sounded too good to be true, but it sure was worth checking out. Soon after we launched the canoe, we maneuvered it through a riffle that flowed into a deep pool. We could see about 4 or 5 feet down into the clear water. On the right side of the river, a fallen red oak, bare of leaves, lay half in and out of the water. Victor angled the canoe next to the tree and told me to take my jigging pole and drop a crawdad-colored grub among the submerged branches. While jigging around one of the large limbs, I felt a strike and set the hook. After briefly wrapping around a branch, a fat, 8-inch goggle-eye came to the surface.

"That's a nice one!" Victor exclaimed. "Catch another!"

While I fished the downed tree, Victor cast his grub to the opposite bank next to a rock shelf and submerged boulders. Within 20 minutes he caught and released a white bass, two spotted bass and a smallmouth, all about 10-inches long. He also added two fat green sunfish to the three goggle-eyes that I caught.

"We could probably sit here for another 20 minutes and catch more fish," Victor said, "but let's move on. We've got a lot of river to see today."

As we drifted through the next pool, we threw to bankside cover. In the floatable stretches of the river, many of the pools are several hundred yards long, and the current is slow. Each pool is like fishing a pond—a pond with prime cover along both sides.

I caught several longear sunfish in the first pool. Adult longears average only about 5 inches long, but Victor told me to put them on ice. They yield small but tasty fillets. Victor caught another green sunfish. At the end of the hole next to a submerged log, I caught two bluegill, each about 6-inches long.

In the next pool, Victor pulled the canoe alongside a downed sycamore, the crown of which lay submerged in deep water. He dipped the plastic grub among the limbs and pulled out an 8-inch white crappie. While he unhooked the fish and put it in the cooler, I caught a white crappie about the same size. We sat at that tree for about 30 minutes and caught a half dozen other crappie, a mix of blacks and whites, all about the same size.

Victor said our success was about average for a day of panfishing on the St. Francis.

"Some days the action is faster; some days it's slow," Victor said. "But almost always, you can come off the river with a good mess of panfish."

Victor said his favorite strategy for catching panfish on the St. Francis is to cast or jig a slider grub threaded on a 1/32-ounce, horsehead jig equipped with a small spinner. Any small jig setup or Beetle Spin works well, but Victor prefers slider grubs.

For casting, he uses medium-weight tackle with 4- or 6-pound test line. For jigging, he uses a 12-foot collapsible jigging pole equipped with a small spinning reel and 10-pound test line. The heavy line lets him straighten out hooks that get snagged while fishing. It also provides leverage to work larger fish.

Whenever we found good cover, we spent 20 to 30 minutes at the spot before moving. Victor said on longer floats, or when he combines overnight camping with

A CHANCE TO CATCH *Walleye*



JIM RATHERT

The St. Francis River was once one of Missouri's premier walleye streams. The Missouri state-record walleye—a 20-pounder—came out of the St. Francis. For reasons not fully understood, the river's walleye population plummeted to the point that catching a walleye there was extremely rare.

For the past several years, however, the Conservation Department has been rigorously stocking walleye in the St. Francis. This boost to the population has proven successful. The walleye in the river are again spawning and producing young.

In the spring of 2003, the Department opened the river to walleye fishing, with an 18-inch, four-fish limit. If you panfish the St. Francis, your catch might well include walleye.



The banks of the St. Francis River are loaded with plenty of fish-holding cover.

float-fishing, he lingers longer at spots that produce fish.

“When the fish are hitting well and you get into crappie, you can catch all the fish you need for supper out of one or two downed tree tops,” Victor said. “A lot of the crappie run between 7- and 11-inches long, but now and then you’ll catch 12- or 13-inchers.”

On my first day on the river, none of the panfish we caught were what you would call “lunkers,” but they were large enough. During our five hours of fishing, we put 48 panfish in the cooler. We also caught 13 different species of fish, including largemouth bass, smallmouth bass, spotted bass, longear sunfish, green sunfish, redear sunfish, warmouth, white bass, black crappie, white crappie, goggle-eye, bluegill and channel catfish.

Victor said the best times to panfish the St. Francis are on days when temperatures reach no higher than the 80s. Those are also the best days for camping. When temperatures reach into the 90s or hotter, fishing can be uncomfortable. During mid-summer, the water level sometimes drops so low that it’s hard to float a canoe through the riffles. The fishing is still good in the pools. It’s just much harder to reach them.

It’s a good idea to find out about river levels before you travel to the river. Recent rainfall will improve the

floating, but if the rain is too heavy, the water muddies so much that it’s not good for fishing. A good source of up-to-date river conditions is the canoe rental service at Sam A. Baker State Park (537/856-4223).

State law mandates that all boaters on Missouri waters have personal flotation devices. It’s a good idea to wear them. The St. Francis drains rocky, hilly terrain. Heavy rains reach the river quickly and, in little time, can turn the river into a roaring rush of dangerous water.

You will find a lot of public access points on the river. The online Missouri Conservation Atlas shows most access points along the river. Just go to <www.missouri-conservation.org> and click on “Conservation Atlas,” on the left side of the home page.

Plan a day trip, putting in at one access and taking out at another access downstream. Four to six miles of river makes for a good day’s float if you spend a reasonable amount of time fishing each pool.

If you enjoy panfishing, the St. Francis River has a lot to offer. Most of the time it provides a peaceful, easy float and the opportunity to catch a lot of fish and a large variety of fish. It has quickly become my new favorite panfishing spot, and there’s a good chance it could be yours, too. ▲



One fall afternoon, as I trimmed a Japanese barberry bush, my wife noticed a tan, walnut-sized glob on a twig near the center of the bush. A few shriveled leaves were attached to one side.

She thought it was some disease or gall. After closely inspecting it, I thought it might be an insect egg pod.

"Let's not disturb it and see what hatches in the spring," I said.

Winter passed, and the late April sun warmed the brick on our south-facing front porch. One afternoon I arrived home from work while it was still light. Instead of my wife greeting me at the back door with her usual kiss, she said, "Well, Mr. Pod Protector, come take a look at your little bundle of joy."

As I approached the bush, I saw the tan-colored glob. Dangling below it on a tiny thread was a swaying, squirming mass of grayish-green nymphs clinging to the thread and to each other. There was no mistaking the little critters with triangular-shaped heads, thin-segmented abdomens, and raptorial front legs for anything but praying mantises.



NATURE'S PRAYING PREDATOR

Going eye to eye with the dragon of the insect world.

by Bernie Rains
photos by Jim Rathert

The next day the tiny mantises were performing gymnastics on the barberry bush branches and prowling on the ground. Observing this “outpouring” of life perked our interest in the insect and “egged” me on to take a closer look at the life history of the praying mantis.

From Eggs to Nymphs

After mating with a male in late autumn, the female mantis lays eggs in a foamy liquid secreted from her abdominal glands. She places the foam on and around



Baby mantises emerge in masses from each egg case.



Chinese mantises are the largest of our mantis species.

a twig or branch, where it quickly hardens to form a protective shell about the size and color of an English walnut. The egg case, or “ootheca,” is hard to locate because of its color and often secluded location. A female mantis can produce one or more egg cases. Last winter, our barberry bush held six oothecae.

The baby mantises, or nymphs, hatch on warm days in April. They may hatch all at once or in batches. Two hundred or more mantis nymphs may emerge from a single egg case. The young nymphs hang by a thread from the ootheca until their skins harden. It takes the entire spring and summer for a nymph to mature into adulthood.

As a mantis nymph matures and grows, it periodically replaces the outer covering of its body through a process called molting. It sheds its outer covering, or exoskeleton, and replaces it with a new exterior skeleton that was formed underneath. Depending on the species, mantis nymphs molt five to ten times during the summer. The final molt produces an adult mantis bearing two sets of fully formed wings.

The Perfect Predator

A mantis has three distinct body segments; head, thorax and abdomen. The thorax has an enlarged portion that forms an impressive neck to which legs and wings are attached. The abdomen comprises the hind part of its body. Its head can move 180 degrees from side to side.

On the head are two sets of eyes. One set contains two large, compound eyes with hundreds of facets and two lenses. The second set contains three simple eyes. The compound eyes are on opposite sides of the head, and the three simple eyes are in a triangular pattern between the antennae. Reportedly, mantis eyes are sensitive to slight movements up to 60 feet away.

The most conspicuous body parts of a mantis are its front legs. The front legs of the mantis have rows of strong spines for grabbing and holding prey. The front of the legs folds back against the middle, making an effective spiked trap for holding prey.

When hunting, the mantis holds these upright in a manner which some say resembles a person in prayer, hence the name “praying” mantis.

A female mantis usually has a heavier abdomen and is larger than the male. In North America, a mantis can have a body length of 2-6 inches. The female’s abdomen has six segments. A male has eight. When fully developed, both sexes have two sets of wings. The front pair is thick and narrow. The back pair is thin, and folded like a fan. Mantises do not fly long distances. If undisturbed, males fly more than females, and often at night.

There are three common species of praying mantis in



The native Carolina mantis is smaller than the Chinese mantis. Its color varies from pale green to brownish-gray.

North America. The European, *Mantis religiosa*, and the Chinese, *Tenodera aridifolia sinensis*, were introduced in the Northeast around 1900 to control garden insects. The Chinese mantis is tan, except for the outer edges of its forewings, which are pea green. The species considered native to the United States is the Carolina mantis, *Stagmomantis carolina*.

The closest relatives to the mantis are the grasshopper, cricket, and cockroach.

Fierce Lifestyle

Mantises are commonly found in meadows, gardens, and clearings. They are ideal inhabitants of rose and vegetable gardens, for they voraciously devour aphids, leafhoppers, mites, flies, and grasshoppers.

Because of its hunting ferocity, the praying mantis has been dubbed “the dragon of the insect world.” An adult mantis will attack moths, butterflies, horseflies, beetles and other mantises. They have been known to attack animals larger than themselves, including frogs, lizards, and small birds. Such a contest would be exciting to observe.

The mantis hunts mostly by selecting a promising location and waiting motionless for unsuspecting prey to come within striking range. Its varied coloration enables the mantis to sit unnoticed on twigs and stems. Its coloration usually reflects dominant colors of the vegetation in its habitat. Mantises tend to be green in areas of grasses

and leafy weeds, and brown in woody areas.

Sometimes a mantis will pursue prey by creeping to within striking range. Although the stalk is stealthy, the attack is incredibly rapid. The mantis starts eating the captured insect alive and almost always starts at the neck to quickly stop any struggle to escape.

Despite its ferocity, the mantis sometimes ends up as food for other creatures. Spiders, ants, lizards, birds, bats, and frogs eat mantis nymph or adults. A mantis can detect high-frequency sounds like those emitted by bats. A mantis will drastically change its flight into an erratic, descending spiral when bats are nearby.

The mating habit of the mantis is consistent with its predaceous disposition. Female mantises are larger than males and sometimes devour them. For mating, a male mantis cautiously approaches the female from behind and climbs onto her back. During the mating process, which may last a day or more, the female may turn and devour the male’s head. It usually finishes eating the male after mating.

Insect of Fame

Although they look fierce and dangerous, praying mantises are harmless insects that are beneficial to flower and vegetable gardeners. I’m glad we have them in our yard.

Look closely around your property, you may be lucky enough to discover some of these valuable and fascinating insects, too. ▲

Set-line abuse wastes fish and endangers others. Watch Those Lines!

by Kevin Sullivan, photos by Cliff White

Rob Farr's johnboat eases across the glassy surface of Truman Lake as the warming rays of the sun wrestle to break through the fog. He approaches an orange jug floating on the water and cuts the engine. With the outboard off, all is silent in the cove.

The jug floats without movement, suggesting that the trotline it marks doesn't hold any fish. Nevertheless, Farr retrieves the orange jug and starts a familiar grab-and-pull journey down the line. The first hook comes into view and is bare. So are the second, third and fourth hooks.



It's unconscionable and illegal to leave fish hanging on a set-line.



Farr senses some extra resistance farther down the line. He pulls gently and brings a big flathead catfish to the surface. Trouble is, this flathead has been dead for days. It's now an unusable, partly decomposed carcass. The rotten smell of the fish assails Farr's nostrils. Farr, a Conservation Agent in Benton County, knows from experience that the unattended trotline probably contains more rotting fish carcasses.

Working unattended and unlabeled setlines is a regular part of a Conservation Agent's job. Once an agent identifies illegal setlines, he marks the illegal lines with either seizure tags or tags to remind the user that lines must be run every 24 hours.

Trotlines, throwlines, jug lines, limb lines and bank lines (known collectively as set-lines) are legal in most Missouri waters. Unfortunately, some anglers abuse the privilege of using set-lines by either not labeling their lines with their name and address, or by not attending their set-lines at least every 24 hours. Both are required by the Wildlife Code of Missouri. Many setlines don't meet either requirement.

Set-line abuse is becoming a serious problem on many of Missouri's waters, especially Lake of the Ozarks and Truman Reservoir. On these waters, hundreds of trotlines are strung along shorelines or are stretched across river channels. Boaters complain about having to run a gauntlet of trotlines and jug lines as they maneuver their boats.



Set-lines can tangle fishing lines, wrap around propellers and endanger swimmers.

Rod and reel anglers grumble because they can't even drift across an open flat without snagging an invisible trotline. Dock owners are frustrated when they can't find an open spot to fish from their own docks.

Trotlines are not the only setlines used illegally. Anglers also fail to properly label or run their throwlines, jug lines, limb lines and bank lines. Abuse of these methods also results in unnecessary dead fish.

To gather input from Missourians about the statewide catfish management plan, Conservation Department officials conducted public meetings in the fall of 2003. One of the recurring themes in those meetings was set-line poaching in Missouri. Citizen after citizen stood and voiced their displeasure about set-lines not being attended and about people running other anglers' set-lines.

Breaking the cycle of set-line abuse is complicated, and because it has been going on for so long, change won't come overnight. Conservation Department officials don't want to take away the legal methods available to anglers, but if set-line abuse continues, officials may be forced to consider significant restrictions on set-line methods.

The best solution is for set-liners to use their equipment properly and legally, and to demand the same from their peers. Here are some tips on proper set-line use, and ways to avoid dead fish on your set-lines:

✓ As required by the Wildlife Code, plainly label trotlines, throwlines, jug lines, limb lines and bank lines with the full name and address of the person using the equipment. This provides contact information to conservation agents if they need to get in touch with the owner of the lines.

✓ Mark at least one end of trotlines that are set in open water with a float or something similar. This warns boaters, swimmers and skiers that they are approaching a set-line. Invisible set-lines are an underwater hazard just waiting for a victim.

✓ Be considerate of other anglers by never touching or running their lines for them. It may be

tempting to run a jug line if it's bobbing up and down with a nice blue catfish on the other end, but imagine how you would feel if that were your line and someone was running it for you. Besides, if you take that fish home, it's stealing.

✓ Run your set-lines at least every 24 hours, as required by the Missouri Wildlife Code. If you use jug lines and you free-float them, you are required to stay with them at all times. If you anchor your jug lines, you must run them at least every 24 hours.

✓ Jug lines are your responsibility, and you should make every effort to retrieve jugs that have been displaced by hooked fish, wind or current.

✓ Hooks attached to throwlines or trotlines should be staged not less than 2 feet apart.

✓ Trotlines and throwlines of more than one person may be joined together, but the number of hooks in the aggregate may not exceed the prescribed number of hooks for one individual. The line should be labeled with each person's name and address.

✓ Always limit your set-line gear to the legal limit of 33 hooks per person. More hooks are allowed for anglers fishing in the Mississippi River. Consult the Missouri Wildlife Code for details.

✓ If you are unable to attend your set-lines at least every 24 hours, you must completely remove them from the water. Removing the hooks does not make the line legal. You must remove the entire line.

✓ If you set-line fish in summer, try to set your baits at relatively shallow depths (less than 10 feet) to avoid hooking fish in too deep of water.

In the summer, fish usually hang out in or near the thermocline, a zone in the water column with the most comfortable temperatures and the most dissolved oxygen. Fish will sometimes swim down into deeper water to feed. These deep-water areas generally have little or no dissolved oxygen in the summer.

As long as they can retreat to well-oxygenated water



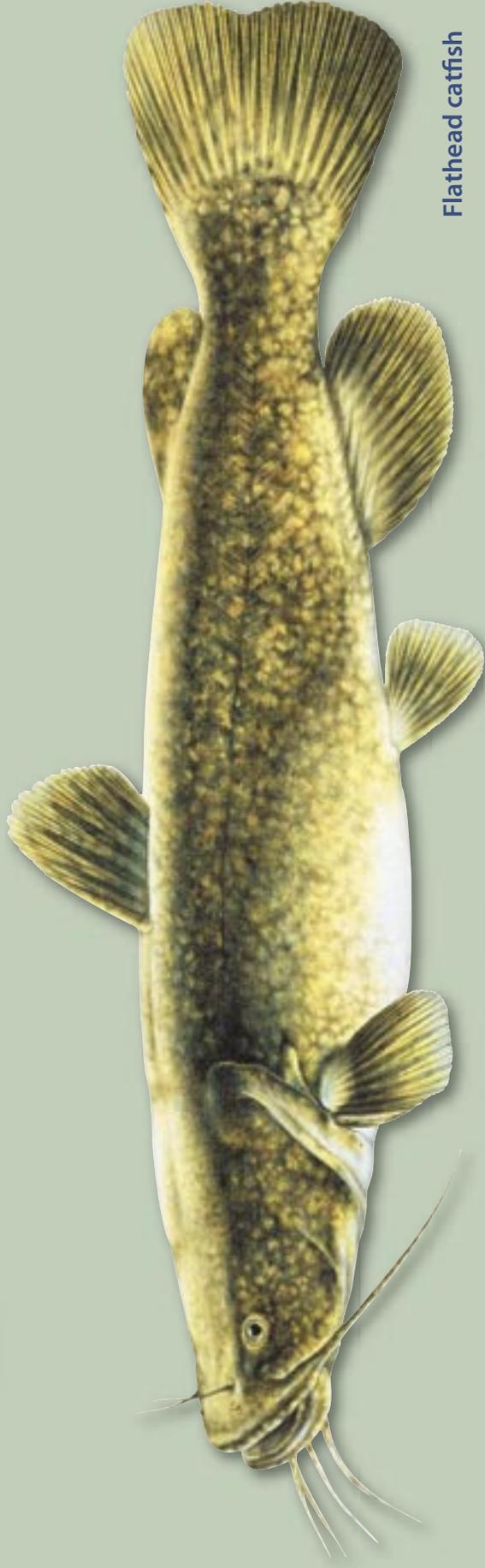
Anglers should run their set-lines at least every 24 hours to avoid wasting fish and running afoul of the law. If you can't check them regularly, remove the lines from the water.

above after feeding, the fish will live.

However, if the hook keeps them in water with insufficient oxygen, they will quickly suffocate. When you check your line, all of your fish will be dead and stiff. You can avoid this common summer problem by setting your hooks in shallower water.

If you have questions about set-line fishing in Missouri, contact your local Conservation Agent for more details. If you are aware of set-line abuse in your area, and would like to report it to Conservation Department officials, use the anonymous tip line known as Operation Game Thief at 800/392-1111 ▲

Managing Missouri's Catfish



Flathead catfish





Blue catfish



ILLUSTRATIONS BY JOSEPH R. TOMELLERI

Channel catfish

by Vince Travnichek

It's easy to see why catfish are so popular. Catfish are easy to find, inhabiting rivers, streams, farm ponds, small lakes and reservoirs throughout the state. You can catch them with simple tackle and almost any bait. Some anglers even catch them on set lines, limb lines and jug lines. Catfish also grow large, sometimes huge. They can be a challenging opponent on the end of a line. And no one can deny how great a meal of catfish tastes.

In an effort to satisfy catfish anglers, the Missouri Department of Conservation has developed a new plan to safeguard and improve catfish angling.



The Department's new catfish management plan has three goals. The first is to provide a diversity of catfish angling opportunities in Missouri. This includes managing select water bodies for large catfish. The second is to inform Missouri anglers of catfishing opportunities across the state. Finally, the plan calls for partnering with Missouri catfish anglers to develop catfish management strategies for the future.

Actually, Missouri catfish anglers played a key role in the development of the plan itself. They provided ideas and direction for future catfish management at a series of public meetings the Department conducted across the state in 2003. Public input was incorporated into the final version of the catfish plan.

The Conservation Department will continue to seek input from interested anglers regarding catfish management. You will also see more information from the Department about existing catfishing opportunities across the state in the future.

Catfish in Missouri

Missouri has 15 native species of catfish. Nine are small, secretive species that spend most of their time hiding in crevices between rocks on river bottoms or under leaf litter at the bottom of creek pools. Collectively, this group is called madtoms.

Missouri also has black bullhead, yellow bullhead and brown bullhead. These three catfish species rarely exceed 2 pounds. Black and yellow bullheads are common across the state. The only confirmed, self-sustaining population of brown bullheads is at Duck



Biologists have been tracking catfish growth and harvest.



ILLUSTRATION BY JOSEPH R. TOMELLERI

A rounded anal fin margin distinguishes channel cats from blue cats, which have a straight margin.

Creek Conservation Area and the adjoining Mingo National Wildlife Refuge in southeast Missouri. Though overlooked by many anglers, bullheads are eager biters and taste great. They provide lots of angling pleasure for many Missourians.

The three catfish species best known to Missouri anglers are the channel catfish, the blue catfish, and the flathead catfish. These popular species are the focus of the Department's future management efforts.

Currently, anglers can take five flathead catfish daily, and 10 blue catfish and channel catfish in any combination daily on all state waters, except where special regulations apply. This combined creel limit has hampered the Department's efforts to manage channel catfish and blue catfish separately.

The new management plan proposes separate creel limits for blues and channels, and a creel limit for channel catfish of 10 daily. The daily creel limit for blue catfish will be five. If these changes are approved by Department's Regulations Committee and the Conservation Commission, the earliest the new regulation would become effective is March 1, 2006.

This proposed regulation actually would increase the total number of catfish anglers could harvest, but it would limit the number of blue catfish taken by anglers. This would allow the Department to manage blue catfish so that more of them can reach their growth potential.

Channel catfish are widespread and common across Missouri. They are most common in prairie and low-land rivers and streams, farm ponds, and small lakes. Channel catfish generally do not exceed 10 pounds in Missouri, and most weigh less than 5 pounds.

In contrast, blue catfish are one of Missouri's largest fish. They can exceed 100 pounds. Blue catfish are common to the Missouri, Mississippi, and Osage rivers and several of our large reservoirs. However, blue catfish are not as numerous as channel catfish.

One method to diversify catfish angling opportunities is to begin managing blue catfish and channel catfish separately. The Department plans to continue managing channel catfish as a food fish, while beginning to

manage blue catfish to allow them to grow larger. To accomplish this, anglers will need to accurately identify the two species.

One reason for the combined creel limit currently in effect is that, unless a blue catfish is extremely large, many anglers have difficulty telling blue catfish from channel catfish. Coloration, for example, is not always an accurate guide because coloration of individual fish can vary due to fish age, gender, time of year, and even water clarity.

However, the two species do have some very clear distinguishing characteristics. The easiest way to tell them apart is by looking at the anal fin of each species. Blue catfish anal fin margins are straight, while channel catfish anal fins have a rounded margin.

Another characteristic is that the slope between the dorsal fin and the head is much more pronounced in blue cats.

Asking anglers to distinguish fish based on such characteristics is not without precedent. Bass anglers, for example, must distinguish largemouth bass from spotted bass. Waterfowl hunters must identify species and, in some cases, gender of species, on the fly.

To better manage this important resource, the Department also plans to initiate studies to identify habits, habitats, and population characteristics of blue catfish in Missouri. Over the next few years, the Department will conduct tagging and movement studies in the large Missouri rivers and reservoirs in order to determine seasonal movement, habitat use, abundance, age, growth and harvest data of blue catfish in Missouri.

Flathead Area

As part of the effort to diversify catfishing opportunities, the Department also is considering management options to increase abundance of flathead catfish longer than 30 inches in a designated section of the Missouri River.

Data collected by Department biologists indicate that most flathead catfish in the Missouri River are being harvested before they reach 20 inches in length or 5 pounds. Flatheads can grow almost as large as blue cats, but relatively few flathead catfish escape



A new catfish management plan envisions improved catfishing opportunities.

anglers long enough to reach their growth potential. The Department is considering regulations that would allow anglers to harvest a few flathead catfish to eat, but would also allow a substantial number of flathead catfish to grow larger.

More Plans

The Department is also looking for opportunities to better manage channel catfish populations in small impoundments across Missouri. The Department routinely stocks channel catfish each fall to maintain populations in small impoundments. The Department is studying 60 small lakes across the state to determine optimum stocking rates for each body of water. Results from this study will allow managers to recommend stocking rates that take into account lake productivity and angling pressure.

While catfishing is already good in Missouri, we believe it can be even better. Any improvements, however, will require the determined efforts of Department biologists and the assistance and cooperation of anglers.

Meanwhile, grab a pole and some bait, and take a friend to sample Missouri's incredible catfisheries. ▲



Missouri's Most
Irritating Plant



For instigating itches, rashes and discomfort, few plants can compete with *poison ivy*. by John D. Miller, photos by Jim Rathert

Although a fortunate few are immune to poison ivy's rashes and blisters, between 50 and 70 percent of people experience physical reactions to contact with the plant. The unpleasant results of a "brush" with poison ivy may last for days, weeks or months.



Don't remove poison ivy if it isn't causing problems or isn't a threat. The plant provides valuable food and cover for a variety of wildlife, like this female eastern bluebird.

Some people are so sensitive to the plant that they suffer after petting a dog that has been in poison ivy, inhaling smoke from burning poison ivy or handling the clothes of someone who has walked through poison ivy.

Poison ivy has been irritating people for quite some time. In 1609, Captain John Smith was the first to call it poison ivy. He said it resembled the English ivy or Boston ivy, but he noted that the plant “caused itchyng, and lastly blisters.”

Identification

Poison ivy is a member of the Cashew Family (Anacardiaceae). Most Missourians have probably heard of at least three “poison” members of this family: poison ivy (*Toxicodendron radicans*), poison oak (*Toxicodendron toxicarium*) and poison sumac (*Toxicodendron vernix*). However, only poison ivy is common in Missouri. Poison oak is rare, and poison sumac has never been recorded here.

Poison ivy is the most widespread of the three plants. Found from the East Coast to the West Coast and from southern Canada to Mexico, it has been found in every county in Missouri and in every type of terrestrial habitat, including prairies, swamps, forests, fields, and glades. Poison ivy can grow in full sun and in nearly full shade. You might find it in your flower garden or lawn, or along your driveway. Its most preferred habitats are forest edges and recently disturbed open fields.

“Leaves of Three”

Poison ivy can be a woody shrub or a vine. As a shrub, it can grow about 6 feet high. As a

vine, it can climb 40 feet up a tree.

The best way to distinguish poison ivy from other plants is to look at its leaves and tendrils.

The old saying “Leaves of three, leave it be” is good advice. Poison ivy has a compound leaf with three leaflets. However, many useful plants, including aromatic sumac, strawberries, and even green beans, also have three leaflets.

The leaflets of poison ivy are arranged alternately, rather than opposite one another, on the stem.

Poison ivy leaves are sometimes—but not always—waxy or shiny. The three leaflets are pointed. The middle or upper leaf is symmetrical. The two sides are mirror images of one another, but they are not symmetrical.

Each outside leaflet often has a distinct notch on its lower half, while its upper half is relatively smooth, with few or no notches. Many times, the outside leaflets resemble pointed mittens. They have a short shaft connecting them to the main leaf stem or petiole, while the middle leaflet appears to have a longer stem.

Poison ivy exhibits some degree of variation, so take the time to look carefully. For example, poison ivy sometimes, but not always, has a red stem. Although green all summer, poison ivy leaflets are among the first to turn color in the fall, usually becoming bright red or orange before falling.

Because you can get a rash from poison ivy in the fall and winter, it's helpful to be able to recognize the plant when it has no leaves. Poison ivy vines are easy to spot. They cling tightly to their host with dark brown, hair-like tendrils. Tendrils are aerial roots.

Poison?

Poison ivy, as well as poison oak and poison sumac, produce an oleoresin called urushiol. The name is derived from the Japanese word for lacquer. This clear and sticky oil contains chemical transmitters and resins that bind to the surface of skin cells. The oil can trigger immunologic responses that can usually lead to a rash or “Rhus” dermatitis.

Urushiol is highly potent. It's estimated that the amount needed to make 500 people itch would cover the head of a pin. The resin is also



Poison Ivy Web Sites

- Poison Ivy, Oak, and Sumac Information Center:
<http://poisonivy.aesir.com>
- USDA Plants Profile: <http://plants.usda.gov>
- Poison Ivy Basics Prevention, and Treatment
(reviewed by the American Academy of Family
Physicians Foundation):
<http://quickcare.org/skin/poison.html>
- US Food and Drug Administration: http://www.fda.gov/fdac/features/796_ivy.html

Poison Ivy (*Toxicodendron radicans*) a.)
Growth form with flower clusters and
aerial rootlets. b.) Stem with fruit cluster.

ILLUSTRATION BY PAUL NELSON



Poison oak only grows in a few counties in Missouri. Its three leaflets each resemble oak leaves.

stable and long-lasting. It can stay active for up to five years on a dead plant. In fact, centuries old specimens of urushiol have caused dermatitis in people highly sensitive to it.

Urushiol is found in every part of the poison ivy plant throughout the year. This includes the leaf, the stem, the stalk and the roots. The oil can remain active on dead and dried plants for 2-5 years. Unwashed clothing can still deliver active urushiol a year or two later. It is truly a plant or all seasons!

People vary in their reactions to urushiol. An encounter with the same plant may cause a mild rash on one person and severe blisters on another. A third person might not experience any effect. Predicting reactions to urushiol becomes even more confusing because people's reactions to it often changes. You may not have any reaction to poison ivy as a child, but then have severe reactions later in life.

Urushiol only becomes an irritant when the oil has been absorbed into the skin and begins

to metabolize with other skin proteins. Your body's immune system reacts to it, causing itching, inflammation and blistering of the skin. Only after your body has destroyed these new proteins do the symptoms subside.

Depending on your sensitivity and amount of exposure, symptoms generally appear after 12 to 48 hours. Contrary to popular belief, you cannot get a poison ivy rash from someone else's rash or blisters. The liquid inside your blisters is not urushiol, but fluids your body has produced. Still, breaking the blisters is not recommended because it could prevent healing and lead to infection or permanent scarring.

Preventing Pain

The oil from poison ivy is sticky and begins to bind with the skin in as little as 5 minutes. Shortly after exposure, you might notice a slight red rash or small blisters. The sooner you wash the exposed area, the less likely you will have a serious rashes or blisters.

Wash with lots of cool running water. Use soap only if it doesn't contain lanolin or another oil that could help spread the urushiol. Old time lye soap is good for removing poison ivy oil, as is Fells Naptha soap and Ivory soap.

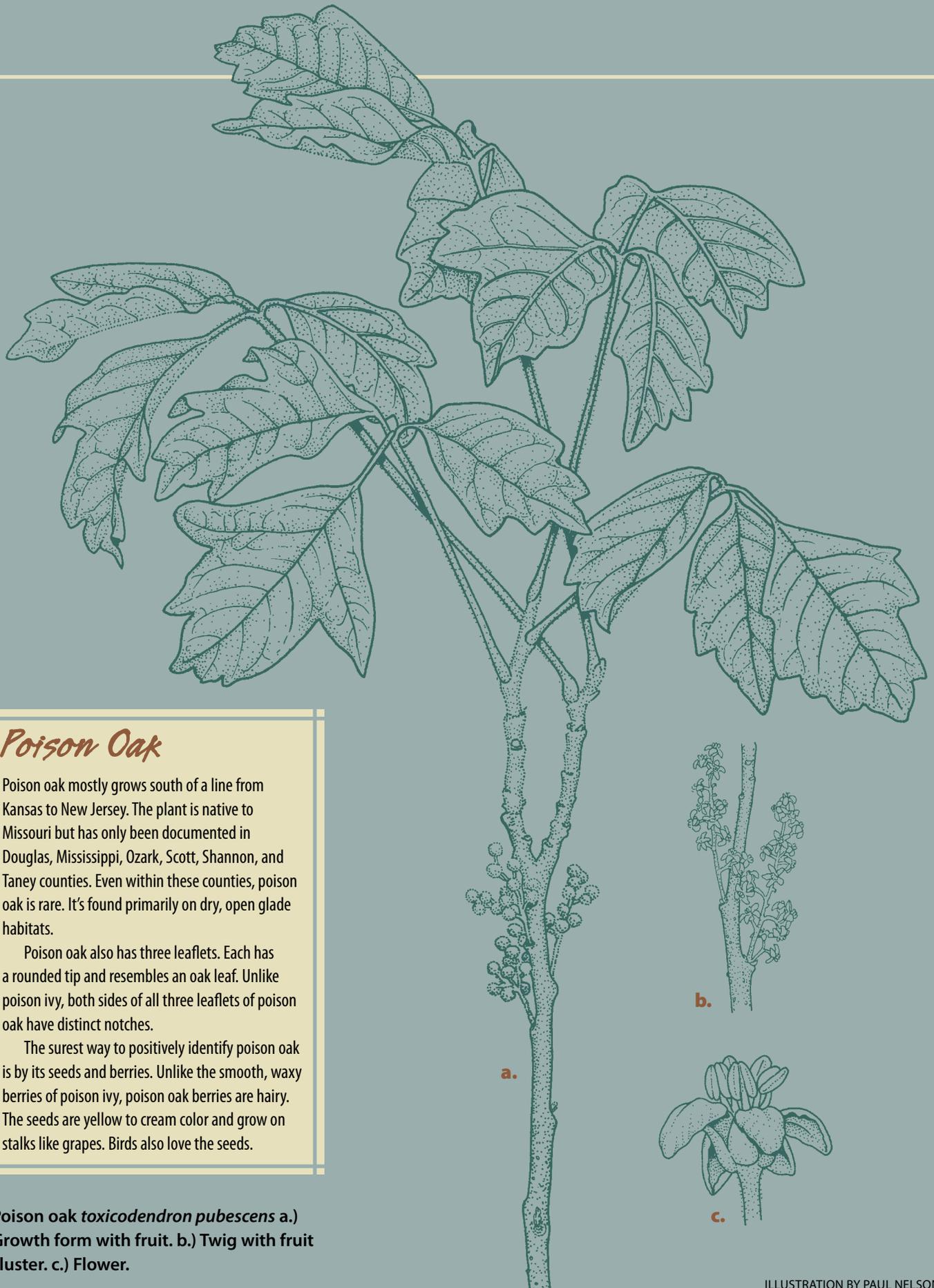
You could also use rubbing alcohol or a mild solution of Clorox, but use them sparingly, and immediately follow with good rinse. These are harsher on the skin.

A few commercial products are marketed for their ability to remove urushiol from the skin. Products like Tecnu and Enviroderm are available in the pharmacy section of most large retail stores.

Folk wisdom calls for the application of jewel weed or spotted touch-me-not to exposed areas. These plants can both remove the oil and soothe the rash, but they should be used only if you are sure you can identify them, and if you have permission to collect them.

Avoiding Irritating Plants

The best preventative for poison ivy is to avoid it. Don't touch it or walk through it. Don't grab leaves along the trail or your fencerow. If you must walk through poison ivy, step on the plants with the sole of your shoe. If you have to remove the plant from a walkway or garden, use gloves for protection.



Poison Oak

Poison oak mostly grows south of a line from Kansas to New Jersey. The plant is native to Missouri but has only been documented in Douglas, Mississippi, Ozark, Scott, Shannon, and Taney counties. Even within these counties, poison oak is rare. It's found primarily on dry, open glade habitats.

Poison oak also has three leaflets. Each has a rounded tip and resembles an oak leaf. Unlike poison ivy, both sides of all three leaflets of poison oak have distinct notches.

The surest way to positively identify poison oak is by its seeds and berries. Unlike the smooth, waxy berries of poison ivy, poison oak berries are hairy. The seeds are yellow to cream color and grow on stalks like grapes. Birds also love the seeds.

Poison oak *toxicodendron pubescens* a.) Growth form with fruit. b.) Twig with fruit cluster. c.) Flower.

ILLUSTRATION BY PAUL NELSON

Knowing
its benefits,
we can
coexist with
poison ivy,
and even
respect it
as another
fascinating
aspect of
Missouri's
natural
beauty and
diversity

The next best way to avoid a rash is to put something between you and poison ivy. You can use a commercial urushiol block or extra clothing to help protect skin.

Remember to avoid anything that has touched poison ivy. Clothing protects you from direct contact with the urushiol, but it can be a source of later contact. Unwashed clothing can contain active urushiol for as long as two years. If your clothes have contacted poison ivy, don't rub your hands on your clothes. If you have used gloves to pull out poison ivy, don't touch exposed skin or eyes with the gloves. Don't touch saws, shovels, or other tools that have been used to remove poison ivy until they have been cleaned.

Don't burn vines. The urushiol oil can withstand burning. It can be carried by the soot and dust in the smoke and cause irritation to eyes, nose, and throat. Remove all vines from firewood.

If you suspect your dog has been running through poison ivy, avoid handling your pet until you are confident no urushiol is on its coat.

Washing clothes with ordinary laundry soap will remove urushiol. Tell those doing your laundry that you may have encountered poison ivy. If you are washing clothes for someone who has been outdoors, handle the clothes with another clean cloth to avoid direct contact with your skin.

Treatment

If you have a mild rash with slight irritation, applying cool, wet compresses will help. For more irritating rashes, a variety of over-the-counter topical corticosteroid remedies are available. Several companies have homeopathic products for poison ivy treatment and prevention. Several brands of antihistamines also provide temporary relief.

If you experience extreme itching or the exposure involves the eyes, throat, lungs, genitals, or if infection sets in, you should seek medical attention. A severe reaction can be fatal if left untreated.

Controlling Poison Ivy

The most effective way to kill young poison ivy plants is to pull them up by the root or to dig

them up. The most effective time to remove poison ivy is from May through July.

Dispose of the dead plants by chopping them into smaller pieces and burying them, or make a brushpile of them. If you pile up the dead poison ivy plants, make sure you tell your friends and family so they know not to burn the pile. Avoid using the poison ivy parts in mulch or compost.

When removing poison ivy vines, sever the main stalk of the vine between 4 and 6 inches above the ground. Apply herbicide to the stump to prevent new growth. Repeat applications may be necessary.

Avoid pulling vines from trees. Sap from the vines can fall on unprotected skin, eyes, or clothing.

Spraying poison ivy allows you to avoid physical contact. Herbicides also have a few risks associated with them. Pre-mixed and ready to spray herbicides containing glyphosate are generally considered safe and effective. These are sold under the brand names of Roundup, Rodeo, Accord and Kleenup. The main problem with these "general use" or "broad-spectrum" herbicides is that they can kill your prize roses along with your poison ivy. When other plants are at risk, you should consider using a plant-specific herbicide.

Removing poison ivy isn't always necessary, especially if the plant grows where it won't bother anyone. Even if poison ivy grows in an area where people could come in contact with it, you could put up a warning sign.

Although poison ivy causes many of us discomfort, the plant has some merits. For example, many birds including warblers, woodpeckers, bluebirds and vireos, eat poison ivy berries. Rabbits, deer, black bear, and muskrats and other animals eat the fruit, stems and leaves.

Thick stands of poison ivy provide cover for small wildlife. The plant's ability to thrive in disturbed habitats also makes it valuable in protecting soil from erosion.

Poison ivy doesn't have to get under our skin. With a little practice and some preventive measures, we can easily identify and avoid it. Knowing its benefits, we can coexist with poison ivy, and even respect it as another fascinating aspect of Missouri's natural beauty

Ten Questions

- 1) *Can I get poison ivy from someone's blisters?*
No. The fluid in the blisters was created by your body. It will not spread the rash.
- 2) *Can I eat poison ivy to develop an immunity to it?*
This homeopathic method is not recommended. It could cause you to become hypersensitive to poison ivy.
- 3) *Can I get poison ivy from smoke?*
Yes. Soot and smoke can deliver particles of urushiol that can irritate eyes, nose and throat. Never burn poison ivy.
- 4) *Will washing clothes spread the poison ivy to other clothes?*
No. Washing clothes with detergent is the best way to remove the poison ivy oil.
- 5) *Can you tell the difference between a rash from poison ivy and poison oak?*
No. The rashes are similar, and the treatment is the same.
- 6) *Will scratching the blisters spread the rash?*
No. Unless urushiol oil remains on your skin, scratching will not cause more of a rash. Scratching does delay healing and increases the likelihood of infection.
- 7) *Can I get a rash from looking at poison ivy?*
No. Only direct contact with urushiol oil can cause a rash. Remember, though, that urushiol can be carried by smoke from burning poison ivy.
- 8) *Can I get poison ivy if I never leave the house?*
Yes. Anything or anybody that has come into contact with poison ivy could spread it. Common agents for spreading urushiol are clothing, tools, sporting goods and pets.
- 9) *Is poison ivy only a problem in summer?*
No. The leaves, stems and roots of poison ivy contain urushiol throughout the year.
- 10) *Will poison ivy vines strangle trees?*
No. Poison ivy doesn't kill trees, but it can stress them by blocking sunlight, sapping nutrients and adding weight.





Prairie chickens display at Dunn Ranch

Guided tours of prairie chicken “booming grounds” will be held at Dunn Ranch in Harrison County March 12 through May 1.

The tours, co-sponsored by the Conservation Department and The Nature Conservancy, allow eight people a day to watch dozens of the large, endangered birds puffing up bright orange cheek sacs, dancing frantically about and flying several feet in the air to attract mates.

Morning tours are by reservation only. Participants must be able to hike one-half mile uphill to reach the viewing blind. To book a spot, call 816/271-3100 between 8 a.m. and 5 p.m. Monday through Friday. Registrants will receive a list of equipment needs and other necessary information by mail.

Why do you visit White River lakes?

The U.S. Army Corps of Engineers is cooperating with agencies on both sides of the Missouri-Arkansas state line to learn more about where, when and why people visit Bull Shoals, Table Rock and Taneycomo lakes.

Survey clerks are easy to identify by their jackets or vests. They are asking lake visitors to spend about three minutes answering questions as they return from trips to the lakes. The survey will continue through October. Participation is voluntary, and all information gathered will be kept anonymous. The information gathered will help state and federal agencies plan management activities, such as fish stocking and construction of new public recreation areas.



APRIL MEETINGS FOCUS ON QUAIL

Missourians can attend public meetings with the Conservation Department this spring to learn about plans for an interagency quail restoration effort and to voice their ideas on this and other topics.

The citizen-led Quail and Grassland Songbird Leadership Council and Conservation Department leaders will host meetings in all eight regions of the state April 2 and 9. They will outline regional quail recovery plans involving the U.S. Department of Agriculture and nongovernmental organizations, such as Quail Unlimited and Audubon Missouri. Participants also will be able to attend field trips to look over habitat management practices.

Meeting dates and phone numbers for more information are:

April 2

▲ Ozark Region—Koshkonong High School in Oregon County 9 a.m. to noon, 417/256-7161.

▲ Northeast Region—Mt. Zion Christian Church, Hwy. 61, 2 miles north of Hannibal, 10 a.m. to 3 p.m., 660/785-2420.

▲ Southwest Region—Robert E. Talbot CA in Lawrence County, 10 a.m. to 2 p.m., 417/895-6880.

▲ Northwest Region—Grand River Inn in Chillicothe, 10 a.m. to 3 p.m., 816/271-3111.

▲ Southeast Region—Millersville Elementary School in Cape Girardeau, 9 a.m. to 4 p.m., 573/290-5730.

▲ Central Region—Whetstone Creek CA office, 10 a.m. to 3 p.m., 573/884-6861.

April 9

▲ Kansas City Region—NECO Seeds demonstration farm in Cass County, 10 a.m. to 3 p.m., 816/655-6250.

▲ St. Louis Region—The Conservation Department’s St. Louis Regional office, St. Charles, 1 to 4 p.m., 636/300-1953.





Turkey seasons set

Missouri's spring turkey season remains the same as last year's, but those who chase turkeys in the fall can enjoy twice as many hunting days and more liberal hunting opportunities.

The Conservation Commission set 2005 spring turkey season for April 18 through May 8. This three-week season, along with bag limits and other regulations, remain unchanged from 2004. The youth spring turkey season again will be two days, April 9-10.

The fall turkey season, which previously ran for two weeks in mid-October, now includes the entire month of October. Hunters this year will be allowed to kill the season limit of two birds on the same day if they so choose. In the past, hunters could take only one turkey per day during the fall season,

Research indicates the fall season changes will have little or no effect on the size of the state's turkey flock. However, the Conservation Department will monitor population and harvest data to ensure spring hunting opportunities are not affected by the expanded fall opportunities.

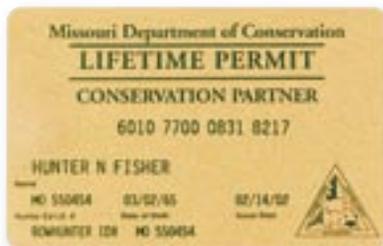
TWO LUCKY DEER HUNTERS WIN LIFETIME PERMITS

Matthew Self and Charles Hulsey are at opposite ends of the age spectrum, but they share a love of deer hunting and excellent luck. Self, 11, and Hulsey,

72, are the winners in the Missouri Conservation Heritage Foundation's drawing for two Lifetime Conservation Partner Permits.

The Foundation held a drawing for the two permits, along with several wildlife art prints, as an incentive for hunt-

ers to buy 2004 deer permits early. All hunters who bought permits or acquired their no-cost landowner permits by November 5 were included in the drawing. Lifetime permit prices depend on the buyer's age, ranging from \$70 for those 60 years and older to \$800 for ages 16-29. They entitle the holder to fish and hunt for all but deer and turkey without additional state permits for life.



Meet author at Powder Valley



Nature photographer and botanist Don Kurz will be at Powder Valley Nature Center April 1 at 7 p.m. to present spring wildflowers slide show and to sign books. Conservation Department books written by Kurz include *Ozark Wildflowers*, *Trees of Missouri* and *Shrubs and Woody Vines of Missouri*. For more information or for reservations, call 314/301-1500.

HABITAT HINT: Shape up for spring

It's time to get gardens in shape, and spring cleaning should be completed before new plant growth begins.

Use pruning shears to remove dead foliage and stems that you may have left to provide habitat for wildlife during the winter. Also rake away leaves. Clearing away last year's litter gives you a good look at native asters and lanceleaf coreopsis.

Because spring weather promotes good shoot and root growth in newly separated plants, now is the perfect time to divide large clumps. Native plants that benefit from division include showy evening primrose, sweet coneflower and native phlox.

For help planning a native-plant garden, visit <www.grownative.org>. Click on "Landscape Guide" and then "Easy Landscape Plans." You'll find 11 wildlife-friendly plans, complete with planting guides and plant lists.

You also can request a printed home landscape guide by going to "About GN!" and clicking on "Contact Us." Mail requests to *Grow Native!* P.O. Box 180, Jefferson City, MO 65102-0180. — *Barbara Fairchild*





Experimental hand-fishing season will allow data gathering

Responding to requests from some Missourians, the Conservation Commission has approved a limited hand-fishing season. This experimental season will allow Conservation Department biologists to gather data about the effects of hand fishing.

The season will run from sunrise to sunset June 1 through July 15 in parts of the Fabius and Mississippi rivers in northeastern Missouri, and part of the St. Francis River in southeastern Missouri.

Hand fishing is more commonly known as “noodling.” The practice also is known as “grabbling,” “tickling” and “hogging.” Fifty-one percent of catfish anglers surveyed were in favor of a regulated hand-fishing season as long as it does not harm catfish populations.

Hand fishers must have a resident or nonresident annual fishing permit, a daily fishing permit or an exemption and a \$7 Hand Fishing Permit, available only from the Conservation Department Central Office in Jefferson City. The daily limit is five blue, flathead and channel catfish in the aggregate, with a possession limit of 10. Flathead and blue catfish less than 22 inches long must be released unharmed immediately. Hand fishers will be required to report all fish they take.

The Conservation Department is designing studies to explore the effects of hand fishing on catfish populations. For more information, see the 2005 Summary of Missouri Fishing Regulations, available wherever fishing permits are sold.

Nature Center volunteer passes 2,000-hour mark

Kathy Magruder Miller has always had a strong interest in the outdoors. Growing up in St. Charles, she frequently walked nature trails at August A. Busch Memorial Conservation Area. Despite a busy career, she shared her interest in nature by becoming a Conservation Department volunteer. That started the volunteer naturalist on a path that recently led to recognition by the Conservation Commission.

Miller has presented programs and organized events relating to eagles, vultures, wetlands, fishing, camping, recycling and a host of other subjects. Her volunteer career began at Busch Conservation Area. It moved to Shepherd of the Hills Fish Hatchery when she and her husband moved to the Branson Area in 1999. Her desire to share her love of the outdoors also has taken her around the state with the Becoming an Outdoors-Woman, Wonders of the Outdoor World and Hands On Outdoor Training programs.

Last year she received the Association of Missouri Interpreters' Distinguished Volunteer Interpreter Award. Conservation Commission Chairman Cynthia Metcalf marked a milestone in Miller's outstanding volunteer career in November, when she presented a 2,000-hour volunteer service award to the dedicated citizen-conservationist.



OUTDOORSWOMEN contribute to deer harvest

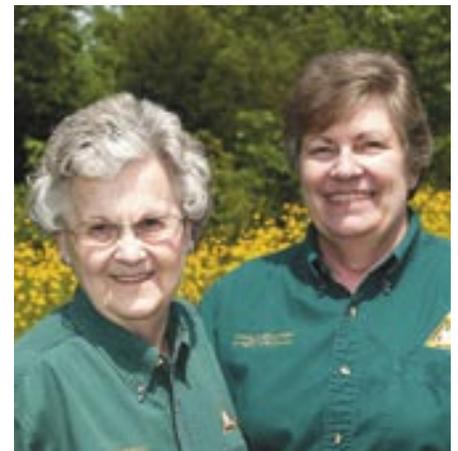
Women hunters, such as Shawna Andrews (below), now make up 11 percent of Missouri deer hunters, up from 8 percent in 1996. Missouri's 19,806 women deer hunters help control deer numbers statewide. For information about programs designed to help women enter the ranks of hunters, visit <www.missouriconservation.org>.



VOLUNTEERS REACH NEW HEIGHTS

Nadine Marshall, left, and Carolyn Brunner have done what no other volunteers at Runge Conservation Nature Center in Jefferson City have done before. Each of the devoted conservationists has donated 5,000 hours of their time to share nature with others.

Marshall has been volunteering since 1995. Brunner began her career as a volunteer naturalist in 1992. The pair, with the help of fellow volunteer Golda Trower, developed one of the state's most popular nature center programs, called “The Wild-lifers.” It blends nature learning with quilt making.





Grants help schools

The new Conservation Field Trip Grant program helps teachers from kindergarten through high school take students on field trips to explore the state's fish, wildlife and natural habitats.

Conservation Department officials devised the program when they learned that budget cuts were forcing some schools to drop field trips to conservation areas and other nature-related sites.

Conservation Field Trip Grants provide up to \$700 to cover the costs of taking students to places that bring scientific principles to life. To qualify, applicants must use the money for field trips for at least 25 students between April 10 and May 20. Trips must address specific science or other academic instructional goals and be connected to classroom instructions. The money can only be used for transportation and can't exceed \$7 per student.

Applications must be submitted between March 1 and March 15.

Applicants will be notified by April 1 whether their proposals will be funded.

Educators in all Missouri elementary and secondary schools or school districts—including public, private, parochial and home schools—may apply. Applications are available from Conservation Department education staff and regional offices or may be downloaded from the agency's public website at <www.missouriconservation.org>. Click on keywords "Education" and then "Conservation Field Trip Grant."

Notorious poacher goes to jail

U.S. Magistrate Lewis M. Blanton has sentenced John H. Partney of Van Buren to three months in prison for illegal trapping in the Mark Twain National Forest. Partney also received \$5,000 in fines for his latest conviction.

Partney previously was the subject of one of the largest poaching cases in Missouri history. In 1996, state and federal agents raided his home and found 196 sets of white-tailed deer antlers, 248 turkey beards, the horns of a bighorn sheep killed in Glacier National Park, and the antlers of a 12-point bull elk killed in Yellowstone National Park, along with photographs and diaries recording alleged illegal activities dating back to 1961.

In that earlier case, he received a 21-month jail sentence, paid \$7,500 in fines, lost \$12,205 worth of confiscated firearms and other equipment and had his Missouri hunting and fishing privileges revoked for life. Under the terms of the Interstate Wildlife Violators Compact, Partney also is barred from hunting or fishing in 18 other states.

Conservation agents Mark Wilcoxon and Ryan Houf arrested Partney in February 2004. Assistant U.S. Attorney Keith D. Sorrell, of Cape Girardeau, handled the prosecution.

Rare birds on display

Throughout March, the Missouri Botanical Garden Ridgway Center will host an exhibit showcasing the Cracidae family of birds of Central and South America. Considered the rarest bird family in the Americas, nearly one-third of the Cracidae species are endangered.

The exhibit, which runs Feb. 25 to April 8, features 40 oil paintings of various Cracidae species from Nigel Hughes.

On April 8, researchers from the Missouri Botanical Garden's Center for Conservation and Sustainable Development will present a joint lecture on Cracidae birds and their environment.

Also, the Saint Louis Zoo features a temporary display of two members of the Cracidae family at the Bird House. They are the helmeted curassow, with its unusual bluish-gray forehead, and the piping guan. For more information, call 314/577-9400 or 800/642-8842; or visit <www.mobot.org>.

Conference focuses on forest stewardship

The annual Tri-State Forest Stewardship Conference April 2 at the Grand Theatre in Keokuk, Iowa, will address landowner concerns and questions about private forest management in Missouri, Illinois and Iowa.

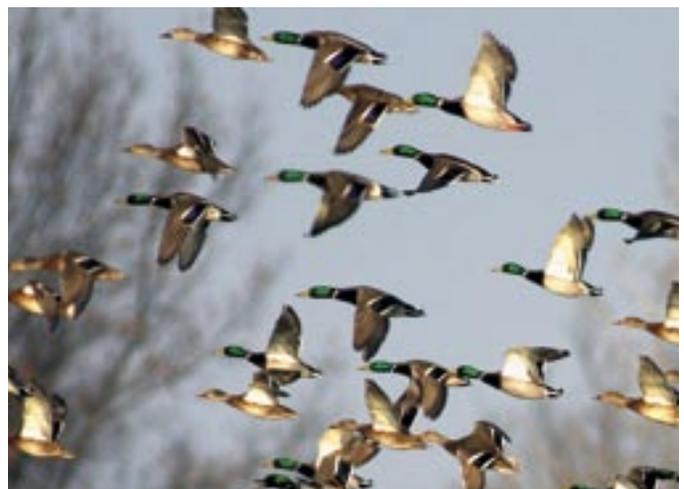
Sessions will cover wildlife, agroforestry, woodland management, forest health and community forestry. Wildlife sessions will focus on game birds, non-game species, backyard birding and pond management.

Registration is \$40 per person (\$35 before March 25). For more information, contact Julie Rhoads, University of Missouri, 203 ABNR Building, Columbia, MO 65211, 573/882-3234, <RhoadsJ@missouri.edu>.

Now is a great time to see ducks

Each spring and fall, waves of migratory birds fly across Missouri. March is an especially good month to see ducks, geese and swans at wetland areas.

Places where you can see migrating waterfowl include August A. Busch Memorial Conservation Area (CA) in St. Charles County, Diana Bend CA in Howard County, Grand Pass CA in Saline County, Bob Brown CA in Holt County, Nodaway Valley CA in Holt County, Ted Shanks CA in Pike County, Eagle Bluffs CA in Boone County and Four Rivers CA in Vernon County. For maps and more information about these and other wildlife viewing areas, visit <www.missouriconservation.org/atlas/>.



Outdoor Calendar

Hunting	open	close
Coyotes	5/10/04	3/31/05
Crow	11/1/04	3/3/05
Deer/Turkey Archery	9/15/05	to be announced
Deer Firearms	11/12/05	to be announced
Groundhog	5/9/05	12/15/05
Squirrels	5/28/05	2/15/06
Turkey (spring)	4/18/05	5/08/05
Youth Resident	4/9/05	4/10/05

Fishing

Black Bass (most southern streams)	5/28/05	2/28/06
Bullfrog	sunset	midnight
	6/30/05	10/31/05
Nongame Fish Snagging	3/15/05	5/15/05
Paddlefish	3/15/05	4/30/05
Paddlefish on the Mississippi River	3/15/05	5/15/05
Trout Parks	3/1/05	10/31/05

Trapping

Beaver	11/15/04	3/31/05
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For complete information about seasons, limits, methods and restrictions, consult the Wildlife Code and the current summaries of Missouri Hunting and Trapping Regulations and Missouri Fishing Regulations, the Fall Deer and Turkey Hunting Information, Waterfowl Hunting Digest and the Migratory Bird Digest. To find this information on our Web site go to <<http://www.missouriconservation.org/regs/>>.

The Conservation Department's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800/392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to <<http://www.wildlifelicence.com/mo/>>.

Conservation duo wins accolades

Outreach Programs Supervisor Kirk Keller and Web Developer Joshua Bullock are all about helping Missourians get the information they want about state government. The duo received the 2004 Governor's Award for Quality and Productivity for setting up a portal on the Missouri State Web page where users can click for news from any agency. Essentially, this portal allows Internet users one-stop information shopping. To see how easy it is, visit <www.mo.gov> and click on "Get Missouri News."



AGENT NOTEBOOK

Conservation Agents are

willing and happy to serve, but many Missourians aren't sure how to contact us.

We have 165 Conservation Agents in Missouri. Most counties have at least one agent. A few counties have two agents, and urban counties may have three. If you do not know who your local agent is, you can find out at any Missouri Department of Conservation office.

Conservation Agents have home offices, and their telephone number are listed in the local directory. Local law enforcement offices also can provide the name and number of your agent. Because of their varied work schedules, agents are sometimes not able to answer their home phones. However, every agent has an answering machine on which you can leave your name, a call-back number and a short message. Agents will return your phone call as soon as possible.

If you need a response quickly and can't reach your agent at home, you can call your local Missouri Conservation Department office during regular business hours. Also, to report wildlife violations, you can call Operation Game Thief, toll free, at 800/392-1111, or contact your local law enforcement office.

Keep the number of your agent near your phone so it's handy when you experience wildlife damage, need clarification on regulations or want to report a wildlife violation. —Ken Polley



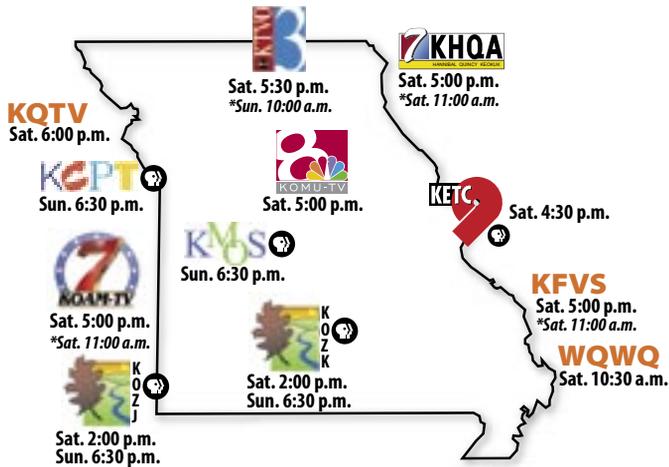
chmielniak

"They never buy anything—they're just browsers."



Program Schedule

Television the way Nature intended!



*Alternate time if pre-empted by other programming

St. Louis	KETC	(Ch 9 PBS)	Sat. 4:30 p.m.
Kansas City	KCPT	(Ch 19 PBS)	Sun. 6:30 p.m.
Springfield	KOZK	(Ch 21 PBS)	Sat. 2:00 p.m. Sun. 6:30 p.m.
Warrensburg	KMOS	(Ch 6 PBS)	Sun. 6:30 p.m.
Joplin	KOZJ	(Ch 26 PBS)	Sat. 2:00 p.m. Sun. 6:30 p.m.
	KOAM	(Ch 7 CBS)	Sat. 5:00 p.m.
Cape Girardeau	KFVS	(Ch 12 CBS)	Sat. 5:00 p.m.
	WQWQ	(Ch. 9/24 UPN)	Sat. 10:30 a.m.
Columbia	KOMU	(Ch 8 NBC)	Sat. 5:00 p.m.
Hannibal	KHQA	(Ch 7 CBS)	Sat. 5:00 p.m.
Kirkville	KTVO	(Ch 3 ABC)	Sat. 5:30 p.m.
St. Joseph	KQTV	(Ch 2 ABC)	Sat. 6:00 p.m.

OTHER OUTLETS

Branson Vacation Channel
Brentwood Brentwood City TV
Cape Girardeau Charter Cable Ed. Ch. 23
Chillicothe Time Warner Cable Channel 6
Hillsboro JCTV
Independence City 7
Joplin KGCS
Kearney Unite Cable
Maryland Heights Cable America 10
Mexico Mex-TV
Noel TTV
O'Fallon City of O'Fallon Cable
Parkville City of Parkville
Perryville PVTV

Raymore Govt. Access-Channel 7
Raytown City of Raytown Cable
St. Charles City of St. Charles-Ch 20
St. Louis Charter Communications
St. Louis City TV 10
St. Louis Cooperating School Districts
St. Louis DHTV-21
St. Louis KPTN-LP/TV58
St. Peters City of St. Peters Cable
Ste. Genevieve Public TV
Springfield KBLE36
Sullivan Fidelity Cable-Channel 6
Union TRC-TV7
West Plains OCTV

Meet Our Contributors



Freelance outdoor writer **Mark Goodwin** lives in Jackson and teaches biology at Jackson Senior High School. He enjoys a wide variety of outdoor activities and spends the bulk of his free time with family and friends in the Missouri Ozarks.

John Miller grew up in Sedalia, where he often encountered poison ivy. As Naturalist Program Supervisor at the Shepherd of the Hills Conservation Center in Branson, he teaches people how to avoid outdoor hazards and enjoy the outdoors. He and his wife, Kathy, enjoy photographing reptiles.



Bernie Rains is a retired environmental engineer with 40 years experience in controlling pollution of St. Louis waterways. He has written about wastewater and storm water issues. Since retiring, he has become a freelance writer of articles on wildlife, food security and other subjects.

Resource Scientist **Kevin Sullivan** has worked for the Conservation Department for 25 years. He currently works out Clinton and is involved in several statewide catfish projects. He enjoys photography, fishing, bible teaching and traveling with his family to his oldest daughter's fiddle contests.



Vince Travnicek learned about catfish while fishing for bullheads in Kansas farm ponds as a youngster. He is now a Conservation Department resource scientist in Columbia and helps manage flathead catfish in the Missouri River. He still enjoys fishing for bullhead with his wife and two daughters.



To learn about bobwhite quail management and Missouri's quail recovery efforts, check out www.missouriconservation.org
Keyword: quail



Spring tonic

Warm spring weather wakes hibernating anglers and sends them to rivers and lakes to feed their spirit. Will the fish bite today? It doesn't matter.—*Cliff White*